

Conceptualizing Learning and Employability

“Learning and Employability Framework”

Erabaddage Gishan Tharanga Sumanasiri¹, Mohd Shukri Ab Yajid¹ & Ali Khatibi¹

¹ Management and Science University, Shah Alam, Selangor, Malaysia

Correspondence: Erabaddage Gishan Tharanga Sumanasiri, School of Graduate Studies, Management and Science University, MSU Colombo Learning Center, No 300, Galle Road, Colombo 03, Sri Lanka, Malaysia. Tel: 94-773-660-929. E-mail: gishan@gmail.com

Received: January 11, 2015

Accepted: January 30, 2015

Online Published: May 29, 2015

doi:10.5539/jel.v4n2p53

URL: <http://dx.doi.org/10.5539/jel.v4n2p53>

Abstract

Extensive studies have been done on employability and the factors that lead to employability. Previous studies have focused on career development programs, internships, work experience programs, soft-skill development programs, and even university admission criteria which can be considered external factors to university student learning experience. Focus on these external factors and their influence on employability appears to have taken attention away from the core function of university education, “learning”. Learning done in universities has been the focus of many studies but it’s difficult to find consensus due to different learning models and approaches considered. Learning and employability are clearly supportive constructs but this relationship appears to be under represented and lacks clarity. Present study overcomes this issue by introducing a framework that clearly represents learning and employability in a manner that is both easy to understand while providing necessary theoretical support. The “Learning and employability framework” is at attempt to overcome the limitations of popular employability models which either lacks operational clarity or simplicity. The model has identified new dimensions of employability which were not considered in previous studies and links learning process, learning environment and learning outcomes to employability. Extensive review of literature on employability and learning revealed two new factors, namely; university reputation and learning outcomes and their influence on graduate employability. While learning outcomes appear to mediate the relationship between lower-tier employability skills and employability, university reputation appear to moderate learning outcome and employability. The “learning and employability framework” can be considered as a timely and relevant study since its simple enough to be understood by students, parents, employers and faculty while providing the required operational clarity and theoretical support for research community. The framework provides direction to those looking to design curricula and pedagogic approach to maximize employability.

Keywords: learning, employability, graduates, students, employers, experience, degree, emotional intelligence, CareerEDGE, university reputation, learning outcomes

1. Introduction

Learning and employability appear to be highly related and complementing research constructs (Knight & Yorke, 2003), but they lack clear understanding mainly due to limited research focus on these two concepts and their association. Review of literature clearly shows that employability is a heavily researched topic focusing on; developing more effective pedagogical tools such as business simulations (Avramenko, 2011), suggestions to curriculum enhancements to suit different social practices and identities (Holmes, 2001), student perspectives about employability (Tymon, 2013), lecturer’s perceptions of employability (Morrison, 2013), graduates career orientation and attitude towards work (Tomlinson, 2007) and even university admission conditions and employability (Alexandrea et al., 2009). The focus on these multiple focus areas and their influence on employability appear to have taken attention away from one of the main functions of university education; “learning”. Since employability is regarded as the benefit and usefulness of study programs for career and work tasks (Storen & Aamodt, 2010) and also there is credible evidence to prove that individual learner, learning environment, work place and study repositories are said to form an “ecology” leading to employability learning (O’Donoghue & Maguire, 2005) a clear understanding of the crucial association between learning and employability is vital.

Multiple studies have attempted to explore the underlying factors influencing university graduate employability with different results (Smith et al., 2014; Finch et al., 2013; Wickramasighe & Perera, 2010; Pool & Sewell, 2007) which clearly demonstrates the lack of focus on employability research. This lack of agreement is clearly attributed to the politicization of the construct, by government, industry and higher education sector (Smith et al., 2014) where different stakeholders with varying vested interests in this concept defining it in manners suited to their agenda. Among the many studies on employability and its underlying factors, several theoretical models can be identified of employability (Pool & Sewell, 2007). The “CareerEDGE framework of employability” one of the most popular employability models appear to summarize more than five decades of work done on employability by different researchers (Smith et al., 2014; Finch et al., 2013; Wickramasighe & Perera, 2010; Knight & Yorke, 2004; de la Harpe et al., 2000; Hillage & Pollard, 1998; Robbins, 1963). CareerEDGE model appear to solve the problem of complexity and lack of research support observed in previous employability models such as “USEM” (Knight & Yorke, 2002), “employability skills” (Cotton, 1993) and “course providers model” (Bennette, 1999) and considered as a widely accepted model of employability (Phillips et al., 2010). “Learning and employability framework” was developed based on five (05) lower-tier employment skill constructs stated in CareerEDGE framework namely; Career Development Learning, Work and Life Experience, Degree subject knowledge, skills and understanding, Generic skills, and Emotional Intelligence.

Studies on learning appear to cover a vast range of topics based on different learning models and definitions while popular LEPO model (Learning Environment, Process and Outcome) proposed by Phillips et al. (2010) appears to bring much needed simplicity required for current study. This paper identifies an overlap between learning process and learning environment in LEPO model and lower-tier employability skill constructs in CareerEDGE. Therefore one can argue that employability and learning (process and environment) is mediated by learning outcomes. This mediating role played by “learning outcomes” is supported by various other studies (Finch et al., 2013; Knight & Yorke, 2002) which justifies it’s inclusion as a separate construct in “learning and employability framework”. Furthermore, university and program reputation is said to impact graduate employability (Finch et al., 2013) and since “better” the university the higher the likelihood of graduates getting employed, resulting in higher employability levels (Ciriaci & Muscio, 2010) university reputation appears to moderation the relationship between learning outcomes and employability.

Since the knowledge based economy requires correct matching of graduates into employment positions, a clear understanding of factors contributing towards university graduates successful transfer into labor market is important (Finch et al., 2013). It’s apparent that we cannot consider graduate learning and their subsequent employability in isolation (Knight & Yorke, 2002). For instance there is a growing demand for those with lifelong learning skills by becoming responsive, commercially driven, high quality and service industry focused. And hence university education must evolve and change according to the needs of the industry by listening to the authentic industry voice (Li et al., 2006). In an increasingly competitive higher education and employment context, the “learning and employability framework” would aid the decision makers and stakeholders to clearly understand, explain and develop policies in the area of university graduate employability, student learning in universities, and the relationship between the two.

2. Conceptualizing Learning and Employability

The limited focus given towards conceptualization of employability and learning as a separate research concept appear to be a major limitation of existing employability research (Smith et al., 2014). A clear understanding of existing research including major theoretical frameworks on employability, learning and their associations will aid the understanding of ontological and epistemological assumptions in the study area. First, the concept of employability is explained with a historical perspective and a clear definition valid for the current study is given.

2.1 Employability and Existing Employability Frameworks

The concept of employment is nothing new and the focus towards employability can be seen from early studies such as “Robbins report” which identified employability as one of the four main objectives of higher education (Robbins, 1963). There has been attempts to clearly define employability using the findings of existing studies (Hillage & Pollard, 1998), employability appear to lack generalizability since they are mainly based on case study approach (Wickramasinghe & Perera, 2010). Since the term “employability” is difficult to define (Hillage & Pollard, 1998) several popular definitions were considered (Smith et al., 2014; Pool & Sewell, 2007; Knight & Yorke, 2002). The employability definition given by Confederation of British Industry (CBI) which states that “Employability is a set of attributes, skills and knowledge that all labor market participants should possess to ensure they have the capability of being effective in the workplace—to the benefit of themselves, their employer and the wider economy” (Confederation of British Industry, 2009) appear to cover the impact of employability

on socio-economic factors. The large scale politicization of the concept has resulted in such lack of agreement (Smith, Ferns, & Russell, 2014) about the exact meaning of employability which has hindered the developments in this area.

Theoretical models that explaining the underlying factors of employability and their inter-play are also as complicated and diverse as employability definitions. Clearly the employability skills models such as USEM (Understanding, Skills, Efficacy beliefs, and Meta-cognition) presented Knight and Yorke (2002) as part of ESECT (Enhancing Student Employability Co-ordination Team) project lacks simplicity and clarity to be understood by non-experts as teachers, students and parents. The CareerEDGE framework attempted to provide simplicity and clarify for easy understanding of the concept (Pool & Sewell, 2007) but appear to have reduced its usefulness due to limited research support. CareerEDGE framework appears to be a comprehensive representation of employability but the snap-shot approach adopted reduces its usefulness (Smith et al., 2014). Other exploratory studies on employability such as Finch et al. (2013) and conceptual models on employability such as Smith et al. (2014) appear to be too complicated to enable easy understanding despite the heavy research support. Therefore the employability framework introduced in the present study can be seen as an attempt to combine simplicity and clarity without compromising the research support.

2.2 Learning and Existing Learning Frameworks

Learning is an activity all humans engage in their day-to-day life (Phillips et al, 2010). The large research base on learning does not appear to reach consensus about the precise definition or theoretical framework of learning. The experimental approach towards learning (Kolb, 1984) integrates previous work on experience, perception, cognition and behavior to provide a unique perspective of learning. This is clearly different to behavioral theories on learning which considers learning as an activity based on the principals of stimuli and response which requires minimum internal mental processing or consciousness (Watson, 1913). Social learning theory explains learning through the observation and imitation of models which can be maintained through reinforcements (Bandura et al., 1963) since the simple stimulus-response model was not adequate to explain complex human thought and behavior. The cognitivist approach towards learning consists of several theories including Component Display Theory (CDT) that classifies learning along two dimensions, namely content and performance (Merrill, 1994) while the staged theory of cognitive development proposed (Piaget, 1973) which explains the four stages of the learning and development of a child. Cognitive learning theories are based on the assumption that learner's unknown mind should be open and understood. The learning models explained above show less consensus and there appears to be a clear need for a broad and generalized conceptual learning framework. LEPO (Learning Environment, Learning Process and Learning Outcomes) conceptualizes learning as three integrated components (Phillips et al., 2010). LEPO framework appears to synergize all aspects of learning into one theoretical framework and supports the new learning environments and methods like on-line, mixed-mode and distant learning programs. Hence the present study will use LEPO framework to operationalize the learning done in universities.

There are multiple definitions of learning based on different schools of thinking. The present study will use the popular learning definition given by Schunk (2012) "Learning is an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience" since it suits the present study on university graduate learning and employability. Current study considers both formal and informal learning in a manner that covers learning inside and outside universities (Phillips et al., 2010)

2.3 Learning and Employability Framework

The concepts of learning and employability appear to be complementing each other (Knight & Yorke, 2003) and hence a clear understanding of learning and employability can give more insight and clarity for further studies on this area. The "learning and employability framework" was formulated through an extensive review of the existing definitions and conceptual frameworks on employability, and explained in following four steps.

First, CareerEDGE framework proposed by Pool and Sewell (2007) clearly emerge as one of the most popular and simple conceptual frameworks in explaining the underlying constructs of employability. CareerEDGE model suffers from the problem of lack of quantitative research support and lack of operational clarity. Despite this shortcoming CareerEDGE framework appears to have made a significant impact towards employability since it has clearly identified five employability skills categories namely; career development learning, work and life experience, degree subject knowledge and understanding, generic skills and emotional intelligence (Pool & Sewell, 2007). The fact that other unrelated exploratory studies on employability skills (Smith et al., 2014, Finch et al., 2013) has concluded similar employability skill categories justify the use of CareerEDGE employment skill categories in the new learning and employability framework.

Second, studies on learning reveals that above five employability skill categories proposed by Pool and Sewell (2007) in CareerEDGE framework are similar in focus to learning environment and process according to LEPO model of learning (Philips et al., 2010). LEPO model summarizes learning to three broad concepts Learning environment, learning process and learning outcomes and clearly stands out as from other models of learning as generalized and integrated conceptual framework on learning (Phillips et al., 2010). Further, many national and international higher education quality frameworks have identified learning outcomes as one of the main deliverables of university education (Liu, 2010) with VSA (Voluntary System of Accountability) doing a leading role in US higher education system through evaluation of core learning outcomes of universities by evaluating common, multi-disciplinary and university wide skills. Therefore it's clear that the five lower-tier employability skills constructs career development learning, work and life experience, degree subject knowledge and understanding, generic skills and emotional intelligence have direct relationship with learning outcomes of university degree programs.

Third, employability is clearly linked to learning outcomes of university and degree programs (Finch et al., 2013) while those activities focusing on soft-skill development are considered vital for successful employability of graduates. This strong relationship between learning and employability has been the focus of a series of studies done by ESECT (Enhancing Student Employability Co-ordination Team) which identified the association between good learning in universities leading to successful employability (Knight & Yorke, 2004). Since employability is considered as a benefit of university degree programs (Storen & Aamodt, 2010) and there seems to be a direct relationship between learning outcomes and employability.

Fourth, there is clear evidence to suggest that university graduate employability is influenced by variety of factors including institutional image, institutional branding, institutional ranking and program structure (Finch et.al., 2013). Therefore a proper understanding of university and degree program reputation is vital since it directly impacts ultimate employability of graduates. Finch et al. (2013) states that reputation is a combination of both university level and degree program level reputation which can influence the perceptions of employability. Since the university and program reputation is not an essential element for employability, university graduates from lesser known universities or degree programs are also able to demonstrate employability. Therefore university and program reputation appears to moderate the relationship between learning outcomes and employability. Studies have also shown that university reputation may enhance employability of graduates from these institutions (Chevalier & Conlon, 2003). We use the term "university reputation" to summarize institutional level reputation, without any association towards program level reputation which is difficult to measure in international higher education context.

Careful consideration of the above mentioned research evidence lead to the formation of "Learning and employability framework". The framework combines the simplicity and clarity with strong theoretical support to produce a practical framework that is of interest to stakeholders such as students, graduates, faculty, employers and various other groups. "Learning and employability framework" is still theoretical in nature and is ready for quantitative testing methods since all constructs are directly measurable through quantitative methods unlike many of its predecessors including CareerEDGE (Pool & Sewell, 2007), USEM (Knight & Yorke, 2002), and Employability skills model (Cotton, 1993). "Learning and employability framework" can be considered as a major breakthrough in learning and employability research, since for the first time a clear conceptual framework with sound theoretical support and clear direction for operational support through quantitative data and SEM (Structured Equation Modeling) has emerged.

3. Learning and Employability Framework on Employability

Figure 1 below demonstrates the visual representation of "learning and employability framework".

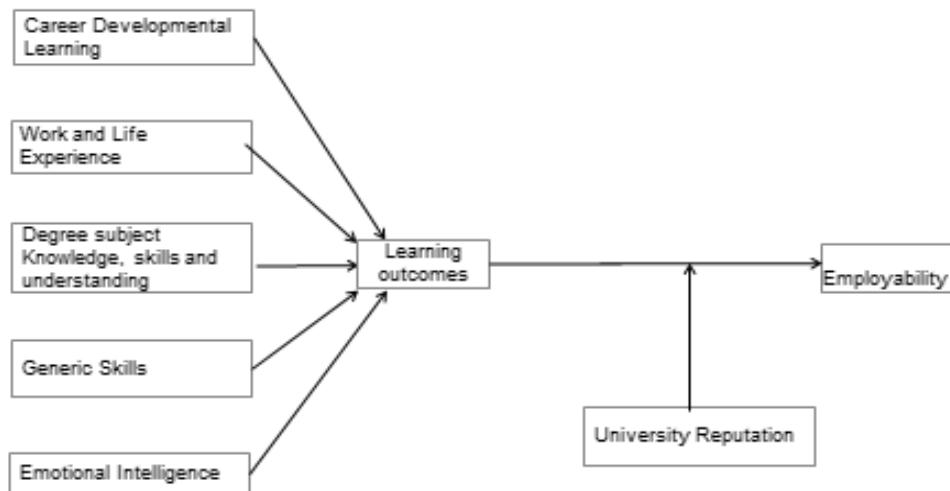


Figure 1. Learning and employability framework

3.1 Learning and Employability Framework Components

Accordingly to learning and employability framework, the five lower-tier independent constructs, namely; Career Development Learning, Work and Life Experience, Degree subject knowledge, skills and understanding, Generic skills, and Emotional Intelligence represent different aspects of learning students are exposed to during their university undergraduate degree programs and they show a direct association to Learning outcomes of such university degree programs. On the other hand, learning outcomes demonstrate a direct association with graduate employability and hence learning outcomes appear to moderate the relationship between respective learning areas and employability. The reputation of university mediates the association between learning outcomes and employability and demonstrates an indirect influence. Unlike previous employability models “learning and employability model” combines learning process, environment, and outcomes of learning with employability. The learning and employability model is simple enough to be understood by faculty, students, parents and employers. The model can be used as a guide to curriculum designing, pedagogic approach improvements, and also to understand the skill gap between industry demand and university supply. Following section provides a detailed explanation of the eight constructs used in the learning and employability framework while explaining the antecedent factors that will allow operationalization of the model in practice.

Learning and employability framework consists of eight constructs and proper understanding of these constructs, their definitions and underlying factors that enable operationalize these constructs will be helpful in successful application of this model.

3.2 Degree Subject Knowledge, Understanding and Skills

Degree subject knowledge, understanding and skills was considered as the central most concept in CareerEDGE model (Pool & Sewell, 2007) and remains to be the same in Learning and employability model. Since better career and job prospective resulting from university education is still among the main reasons for students to seek university education, despite employers not hiring graduates based only on their technical knowledge, understanding or skills (Johnes, 2006). The academic knowledge, skills and understanding gained during university and ultimate achievement has significant effects on their future success in the workplace (Copps & Plimmer, 2013). Since CareerEDGE framework appear to capture only satisfaction with degree academic performance in relation to career aspiration further improvements were needed to incorporate other aspects of training and achievement during degree programs. Therefore, improvements in basic skills including literacy, numeracy and IT, improved attendance and behavior, and achieving qualifications introduced by Copps and Plimmer (2013) in JET framework of employability was considered here.

“Learning and employability framework” introduces “degree subject knowledge, understanding and skills as—the improvements in qualification and technical training, improvements in basic skills including literacy, numeracy and IT, and improved attendance and behavior that students attain as a result of university degree programs”. The construct is operationalized using below given six factors

- 1) Satisfaction with degree academic performance

- 2) Academic performance is in line with career aspirations
- 3) Improvements in basic skills such as literacy, numeracy and IT
- 4) Improved attendance and behavior
- 5) Job specific skills
- 6) Job specific technical knowledge

3.3 Career Development Learning

Training on career development is considered essential for university graduates in their pursuit for successful and satisfying occupations (Pool & Sewell, 2007). The DOTS model introduced by Law and Watts (1997) which is considered as one of the most simple and practical career development models which clearly explain above steps (Pool & Sewell, 2007). Studies show that unless university students are able to identify and advertise their newly developed employability to suitable job markets there is little value in employability (Foster, 2006). Studies done of career development learning has identified multiple factors such as decision learning, opportunity awareness, transition learning, self-presenting skills and self-awareness (Diamante, 2014; Pool & Sewell, 2007; Watts, 2006; Hillage & Pollard, 1998). This view is supported has been supported by Copps and Plimmer (2013) where career management skill is introduced as a combination of three factors; career direction—the ability to make career choices and set realistic aspirations, job search skills to identify and pursue employment opportunities, and effectively presenting themselves to employers.

“Learning and employability framework” introduces career development learning—as learning that enable graduates to become aware about themselves, identify and pursue employment opportunities, make career choices and set realistic expectations, employment transitions, and how best to present themselves to suitable employers. The above construct is operationalized using the following five (5) factors.

- Self-awareness—become aware about themselves
- Job search skills—identify and pursue employment opportunities
- Career direction—make career choices and realistic aspirations
- Employment transition skills
- Effective presentation skills

3.4 Work and Life Experience

Work experience includes the activities young people engage outside university or college (Copps & Plimmer, 2013) and these typically include work experience they gain, perception of the value of work experience, network development, and involvement in the community. Pedagogy for Employment Group (2004) states that graduates with work experience are more likely to obtain employment than graduates without work experience. Measurement of wider life experience allows mature students achieve maximum potential by combining their life experience with work-related experience (Pool & Sewell, 2007). Work experience can be included as part of a course, carried out on a voluntary basis or part-time work. Since the definition given by Copps and Plimmer (2013) is much more comprehensive the Learning and employability model will adopt the same.

Accordingly work and life experience is defined as “Activities that increases the; amount of work experience gained, the perceived value of work experience, network contacts, and community involvement”. Based on above definition Learning and employability model operationalizes the work and life experience using the following three factors.

Amount of work experience

- 1) Perceived value of work experience
- 2) Network of contacts developed
- 3) Community involvement

3.5 Generic Skills

Generic skills are also known as core skills, key skills or transferable skills which clearly show the broad applicability of these skills across a range of careers (Pool & Sewell, 2007). The Pedagogy of Employability Group (2004) summarizes 25 years of research work on employability and introduces series of generic skills factor that helps to operationalize the construct. Bennette et al. (1999) states that generic skills support the study and work in any discipline since it can be transferred to a range of contexts. Employers want graduates to

develop their generic skills in number of areas in addition to subject specific skills, knowledge and understanding (Harvey, 2010). Entrepreneurial skills which are considered in certain studies is not included here. This is due to two main reasons, first—not all university graduates look to set-up their own business, and second entrepreneurial skill is already covered by other factors in generic skills explained by Pool and Sewell (2007).

Learning and employability model will use following fifteen factors in operationalizing generic skills (Pool & Sewell, 2007).

- 1) Imagination/creativity
- 2) Adaptability/flexibility
- 3) Willingness to learn
- 4) Independent working/autonomy
- 5) Working in a team
- 6) Ability to manage others
- 7) Ability to work under pressure
- 8) Good oral communication
- 9) Communication in writing for varied purposes/audiences
- 10) Numeracy
- 11) Attention to detail
- 12) Time management
- 13) Assumption of responsibility and for making decisions
- 14) Planning, coordinating and organizing ability
- 15) Ability to use new technologies

3.6 Emotional Intelligence

Emotional intelligence summarizes decades of research done on broad range of areas such as “character”, “personality”, “soft skills” and “competence” into a more precise understanding (Goleman, 1998). Since emotional intelligence is neither genetically inherited nor developed automatically during early childhood, it appears to be something people can learn and acquire from university degree programs and also considered a vital aspect of any employability model (Pool & Sewell, 2007). Emotional intelligence was included under personal qualities section in employability model of Yorke and Knight (2002) but it has been suggested that it deserves a much higher recognition to be considered as a separate construct that influence employability of graduates (Pool & Sewell, 2007).

The term emotional intelligence has been defined as the manner in which individuals perceive process, manage and utilize information that is related to their emotions (Syed et al, 2014). Since individuals with higher emotional intelligence understand others feelings well and are in a better position to utilize group dynamics in achieving organizational goals (Bandura, 1995) While most employability models appear to focus on the empathy aspect of emotional intelligence, CareerEDGE framework has categorized certain aspects of emotional intelligence under higher-level social constructs which are difficult to measure quantitatively. Since CareerEDGE framework lacks evidence about underlying factors of emotional intelligence, the four factors of emotional intelligence described in JET model of employability (Copps & Plimmer, 2013) are used in this study.

- Self-esteem
- Autonomy and control
- Grit and determination
- Empathy

3.7 Learning Outcomes

Increased availability and advancement of university education has raised the question of the value of university degree programs and lead to development of various measurement criteria according to the expectations of stakeholders. Many university systems have accepted that learning outcomes as a common measurement that can unify diverse expectations of stakeholders. Learning outcomes refer to both subject specific and generic skills that students are able to demonstrate as a result of their engagement in a course of study (Phillips et al., 2010).

Higher education research does not provide a clear definition of learning outcomes and hence there is a clear need for a precise definition. While there are various wordings used to describe learning outcomes, it appears that there is very little distinction between the terms “learning outcome” and “learning objectives” and at times both appear to be used interchangeably (Phillips et al., 2010). The increasing demand to standardize higher education with the objective of improved quality has resulted in many government and educational bodies developing educational qualification frameworks. Since learning outcomes are naturally seen as an important product of any university education program this thinking is shared by many accreditation and quality control organizations in higher education. The six learning outcomes introduced (Bourner, 1997) seems to have adequate research support and has been used in many studies to operationalize the learning outcomes in university education. The following six statements are used to operationalize learning outcomes in this study.

- The degree program provided up-to-date knowledge
- The degree program developed my capability to use ideas and information
- The degree program developed my ability to test ideas and evidence
- The degree program gave me the ability to generate new ideas and evidence
- The degree program enabled personal development
- The degree program developed my capacity to plan and manage self-learning

3.8 University Reputation

There is clear evidence to show that university graduate employment is influenced by variety of factors including institutional image, institutional branding, institutional ranking and programme structure (Finch et al., 2013). Therefore a proper understanding of university and degree program reputation is vital since it directly impacts ultimate employability of graduates. Studies have also shown that university reputation may enhance employability of graduates from these institutions (Chevalier & Conlon, 2003), Finch et al. (2013) states that reputation is a combination of both university level and degree program level reputation which can influence the perceptions of employability. In the absence of any degree program level classification or ranking in university education in most higher education systems, only institutional level reputation is considered. Academic reputation appears to moderate the relationship between learning outcomes and employability. Since this association is not clearly explained in earlier studies a proper measurement of academic reputation is vital to validate Learning and employability model.

The following three factors were developed to operationalize university reputation.

- University reputation influence in getting current job
- University reputation influence in career progress
- University reputation influence in securing future employment

3.9 Employability

Employability has many definitions and in this lack of clarity forces researchers to identify a clear notion. Employability has been defined as having a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful (Pool & Sewell, 2007). The idea of “employability as the ability of graduates to get a satisfying job” proposed by Harvey (2010) is used in this study. Work done by Professor Lee Harvey can be considered vital since it's the first attempt to define and measure employability. Since rankings done based on employment rates only compares institutes against each other without providing any guidance towards improvements only the evaluations that indicate areas for improvement while comparing and evaluating outcomes against input and process can be considered useful (Harvey, 2010). Accordingly employability is operationalized using following factors:

- Financial rewards
- Interest
- Delegated responsibility

4. Value of the “Learning and Employability Framework”

The “learning and employability framework” aims to bring much needed simplicity and clarity for faculty, students, parents, employers and other stakeholders who needs to understand the key factors involved in learning process and how these factors related to each other in creating employability. Learning and employability model

is based on two highly popular and relevant theoretical frameworks, CareerEDGE employability model and LEPO learning model. The idea of learning and employability as supporting constructs and not as opposing constructs is clearly represented. It clearly identifies the role of learning outcomes and university reputation in employability. The role played by university reputation in learning and employability was clearly explained. These factors have been previously been discussed in various studies but never been represented in a single theoretical framework. Therefore “learning and employability framework” appeared to have achieved its main objective by clearly representing all the different factors that influence graduate employability using one simple and clear conceptual framework which is easy to be operationalized. The model can be used as a guide for curriculum designing, pedagogic approach improvements, and also to understand the skill gap between industry demand and university supply.

5. Future Developments

Present study proposes a new employability model “Learning and employability framework”. Since the model was developed through exploring relevant literature this still remains to be theoretical and lacks research evidence. The study demonstrates all the major components of learning and employability and their antecedent factors while further research is suggested to test the validity of the model with sound data support. It is also suggested to carry out further research to explore other factors that influence the learning outcome and employability relationship including demographic factors such as gender, age, social class, marital status, disabilities, ethnicity and religion. Further research is also suggested to incorporate higher-level factors of CareerEDGE framework such as Self-esteem, Self-efficacy, and Self-Confidence into this framework in a manner to understand their influence on learning and employability.

6. Conclusion

It's quite clear that learning and employability are supportive constructs that should complement each other. For instance the learning done by students in universities must improve their measurable learning outcomes ultimately resulting in higher level of employability. Faculty members should design curriculum and pedagogical approaches in a manner that improves graduate employability. Present study shows a clear link between learning and employability concepts through sound literature support. In addition to demonstrating the learning and employability association, the framework introduces the role played by university reputation, which is a popular construct that is in common discussion among students, parents, faculty and employers. Reputation appear to moderate the association between learning and employability. A simple, clear and practical model of learning and employability was constructed in a manner that brings evidence together from previous studies.

References

Alexandrea, F., Portelaa, M., & Sáa, C. (2009). Admission conditions and graduates' employability. *Studies in Higher Education*, 34(7), 795-805. <http://dx.doi.org/10.1080/03075070802688553>

Avramenko, A. (2011). Enhancing students' employability through business simulations. *Education+Training*, 54(5), 355-367. <http://dx.doi.org/101108/00400911211244669>

Bandura. (1995). Exercise of personal and collective efficacy in changing societies. In A. Bandura (Ed.), *Self-efficacy in changing societies* (pp. 1-45). New York: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511527692>

Bandura, A., Ross, D., & Ross, S. A. (1963). Imitation of film mediated aggressive models. *Journal of Abnormal and Social Psychology*, 69(1), 3-11. <http://dx.doi.org/10.1037/h0048687>

Bennette, N., Dunne, E., & Carre, C. (1999). Patterns of core and generic skill provision in higher education. *Higher Education*, 37, 71-93. <http://dx.doi.org/10.1023/A:1003451727126>

Bourner, T. (1997). Teaching methods for learning outcomes. *Education + Training*, 39(9), 344-348. <http://dx.doi.org/10.1108/00400919710192377>

Chevalier, A., & Conlon, G. (2003). *Does it pay to attend a prestigious university?* Retrieved January, 5, 2014, from <http://cee.lse.ac.uk/ceedps/>

Ciriaci, D., & Muscio, A. (2010, May 5). *Does university choice drive graduate's employability?* Retrieved January, 3, 2015, from University Library of Munich, Germany: <http://mpra.ub.uni-muenchen.de/22808/>

Confederation of British Industry. (2009). *Future Fit: Preparing Graduates for the world of work*. CBI.

Copps, J., & Plimmer, D. (2013). *Inspiring impact—The journey to employment: A guide to understanding and measuring what matters for young people*. NPC.

Cotton, K. (1993). *Developing Employability Skills*. Northwest Regional Educational Laboratory.

de la Harpe, B., Radloff, A., & Wyber, J. (2000). Quality and generic (professional) skills. *Quality in Higher Education*, 6(3), 231-243. <http://dx.doi.org/10.1080/13538320020005972>

Diamante, R. T. (2014). Career Development Learning and Employability Skills of Students in Information and Communication Technology. *International Proceedings of Economics Development and Research*, 70(21), 110-114.

Finch, D. F., Hamilton, L. K., Riley, B., & Zehner, M. (2013). An exploratory study of factors affecting undergraduate employability. *Education+Tranining*, 55(7), 681-704. <http://dx.doi.org/10.1108/ET-07-2012-0077>

Goleman, D. (1998). *Working with Emotional Intelligence*. London: Bloomsbury.

Harvey, L. (2010). Defining and Measuring Employability. *Quality in Higher Education*, 7(2), 97-109. <http://dx.doi.org/10.1080/13538320120059990>

Hillage, J., & Pollard, E. (1998). *Employability: Developing a framework for policy analysis*. London: Department for Education and Employment.

Holmes, L. (2001). Reconsidering Graduate Employability: The “graduate identity” approach. *Quality in Higher Education*, 7(2), 111-119. <http://dx.doi.org/10.1080/13538320120060006>

Johnes, G. (2006). *Career interruptions and labour market outcomes series*. Manchester: Equal Opportunities Commission.

Knight, P. T., & Yorke, M. (2002). Employability through the curriculum. *Tertiary Education and Management*, 8(4), 261-276. <http://dx.doi.org/10.1080/13583883.2002.9967084>

Knight, P. T., & Yorke, M. (2003). Employability and Good Learning in Higher Education. *Teaching in Higher Education*, 8(1), 3-16. <http://dx.doi.org/10.1080/1356251032000052294>

Knight, P., & Yorke, M. (2004). *Learning, Curriculum and Employability in Higher Education*. London: Routledge Falmer.

Kolb, D. (1984). Experiential learning: Experience as the source of learning and development. In D. Kolb (Ed.), *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.

Law, W., & Watts, A. (1977). *Schools, Careers and Community*. London: Church Information Office.

Li, S. C., Kong, S. C., Lee, F. L., & Henry, J. (2006). Capacity Building for Lifelong Learning: A Study of Practitioners' Perceptions on Information Literacy Framework. *Informatics in Education*, 5(2), 219-232.

Liu, O. L. (2010). Measuring learning outcomes in higher education. *R&D Connections*, 10, 1-6.

Merrill, M. (1994). *Instructional Design Theory*. Englewood Cliffs, NJ: Educational Technology Publications.

Morrison, A. (2013). A class act? Lecturers' views on undergraduates' employability. *British Journal of Sociology of Education*, 1-19. <http://dx.doi.org/10.1080/01425692.2013.802420>

O'Donoghue, J., & Maguire, T. (2005). The individual learner,employability and the work place—A reappraisal of relationships and prophecies. *Journal of European Industrial Training*, 29(9), 436-446. <http://dx.doi.org/10.1108/03090590510610236>

Phillips , R., McNaught , C., & Kennedy, G. (2010). Towards a generalised conceptual framework for learning: The Learning Environment, Learning Process, and Learning Outcomes (LEPO) Frameworks. *Proceedings of the 22nd annual World Conference on Educational Multimedia, Hypermedia and Telecommunications* (pp. 2495-2504). Toronto, Canada: Chesapeake VA: Association for the Advancement of Computers in Education.

Piaget, J. (1973). *Main Trends in Psychology*. London: George Allen & Unwin.

Pool, L. D., & Sewell, P. (2007). The key to employability: Developing a practical model of. *Education + Training*, 49, 277-289. <http://dx.doi.org/10.1108/00400910710754435>

Robbins, L. (1963). *Report of the Committee on Higher Education*. Retrieved January 29, 2014, from <http://filestore.nationalarchives.gov.uk/pdfs/small/cab-129-114-c-173.pdf>

Schunk, D. H. (2012). *Learning Theories:An educational persective* (6th ed.). Boston, MA,: Allyn & Bacon.

Smith, C., Ferns, S., & Russell, L. (2014). Conceptualising and measuring “employability”: lessons from a National OLT Project. *ACEN National Conference* (pp. 1-10). Gold Coast: Australian Collaborative Education Network Limited.

Storen, L. A., & Aamodt, P. O. (2010). The Quality of Higher Education and Employability of Graduates. *Quality in Higher Education*, 16(3), 297-313. <http://dx.doi.org/10.1080/13538322.2010.506726>

Syed, S. Z., Abiodullah, M., & Yousaf, A. (2014). Assessing Emotional Intelligence and Interpersonal Skills of University Students as Predictors of Employability. In *21st Century Academic Forum Conference at Harvard—2014 Official Conference Proceedings* (pp. 243-255). Boston, MA.

The Pedagogy for Employability Group. (2004). *Pedagogy for employability*. ESECT.

Tomlinson, M. (2007). Graduate employability and student attitudes and orientations to the labour market. *Journal of Education and Work*, 20(4), 285-304. <http://dx.doi.org/10.1080/13639080701650164>

Tymon, A. (2013). The student perspective of employability. *Studies in Higher Education*, 38(6), 841-856. <http://dx.doi.org/10.1080/13538320120060006>

Watson, J. B. (1913). Psychology as the behaviorist views it. *Psychological review*, 20, 158-177. <http://dx.doi.org/10.1037/h0074428>

Watts, A. (2006). *Career Development Learning and Employability*. Heslington, York: The Higher Education Academy.

Wickramasinghe, V., & Perera, L. (2010). Graduates’, university lecturers’ and employers’ perceptions towards employability skills. *Education + Training*, 52(3), 226-244. <http://dx.doi.org/10.1108/00400911011037355>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).